

Message

**From:** Adams, Glenn [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=C79E328CD4484265B012DFA81663F5E7-ADAMS, GLENN]  
**Sent:** 9/21/2021 9:48:40 PM  
**To:** Blevins, John [Blevins.John@epa.gov]; Monell, Carol [Monell.Carol@epa.gov]; Torres, Ramon [Torres.Ramon@epa.gov]; Chaffins, Randall [Chaffins.Randall@epa.gov]  
**CC:** Brandi Jenkins (Jenkins.Brandi@epa.gov) [Jenkins.Brandi@epa.gov]; Amoroso, Cathy [Amoroso.Cathy@epa.gov]  
**Subject:** Information requested for briefing with Administrator on Oak Ridge  
**Attachments:** notes on Proposed Oak Ridge Admin Briefing Agenda BJ edits 9 21 21.docx; Oak Ridge Fish Comparison Criteria Table 20SEP2021r.xlsx

John and Carol,

As requested, is an Excel table with a comparison of values (subset of the 22 radionuclides being evaluated). I copied and pasted into the email below too. As you can see, the results of the water currently being discharged meet most of the levels, at least where the discharge would be in an actual flowing stream. Let me know if you have any questions. I also included the exposure assumptions that are different between the 3 calculations (DOE, CWA defaults, and CERCLA).

Also attached are the draft "talking points/bullets" for the agenda. I just saw that HQ sent out a new agenda so please let us know if you need anything else or if these bullets do not provide what you are looking for.

Ramon, Cathy, and I met with FFRRO and FFEO today discussing our progress on the comments to the D1 ROD. We informed them that we are still consolidating the comments from all parties and expect about 50 pages of comments in total. We also stated that we planned to send the comments to DOE on Monday Sept 27<sup>th</sup>. Greg Gervais requested that we send our comments to HQ before submitting to DOE and to give HQ 2 days to identify any "show stopper" type issues that the Region might have missed in our consolidation. He suggested Ramon send the comments to the Office Chiefs/Directors asking for a response from them, not their staff. Ramon and I said we would check with you before agreeing to this because it would mean we would miss our self-imposed deadline of the 27<sup>th</sup>. We do not think there are any outstanding issues, but going to HQ again could open up some new issues. **Are you in agreement with us giving HQ a chance to look at our consolidated comments before we send them to DOE?** If so, our plan would be to get the final comments to DOE by COB Sept 30<sup>th</sup>.

Thanks and please let us know if you have any questions.

H. Glenn Adams, Chief  
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Comparison of Instream Water Quality Criteria for Bear Creek

Radionuclide*	Units	EPA CERCLA Methodology – Site Specific	EPA CWA Methodology - Defaults	Example End of Pipe Effluent Rad Discharge Limit (assuming assimilative capacity of 3)**	Example End of Pipe Effluent Rad Discharge Limit (assuming assimilative capacity of 16)**	Current Average Discharge Measurements at the EMWMF (current landfill)	DOE Proposal
		Site-Specific Instream Ambient Water Quality Criteria	CWA Guidance Defaults Instream AWQC (assumes 34				25% DCS Value

		(AWQC) Equivalent (assumes 15 fish meals/year)	fish meals/year)				
Cs-137	pCi/L	1.2	0.19	3.6	19.2	5.05	750
Sr-90	pCi/L	385	89	1,155	6160	3.41	275
Tc-99	pCi/L	1,883	297	5,649	30128	171	11,000
U-238	pCi/L	972	214	2,916	15552	1.66	188

\* Most mobile and commonly detected radionuclides at Oak Ridge Reservation.

\*\*These are example calculations only since actual radionuclide discharge limits will be a function of the implemented engineering controls (size of pipe, water flow rate at end of pipe, flow rate of receiving body, etc.).

\*\*\* For comparison purposes, the drinking water standard (i.e., MCL) for Cs-137 is 200 pCi/L.

#### DIFFERENCES IN EXPOSURE ASSUMPTIONS BETWEEN DOE, EPA CWA, & EPA CERCLA

Variable	DOE Methodology		EPA CWA Methodology		EPA CERCLA Methodology	
	Value	Source	Value	Source	Value	Source
TR (target cancer risk) unit less	$1 \times 10^{-5}$	Default	$1 \times 10^{-5}$	CWA Default	$1 \times 10^{-5}$	within SF's acceptable range
EFf (exposure frequency) days/yr	1	DOE proposed, no data to support	365	CWA Default	15 meals/year	site specific based on local studies
EDf (exposure duration) yr	30	No longer used CERCLA Default	70	CWA Default	26 years	SF default
IRFa (fish consumption rate)	170 grams/meal	Assumes a single 6-ounce meal*	22 grams/day	CWA Default	227 grams/meal (8 ounce meal)	SF default